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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,200	06/27/2003	Craig J. Neal	P00775-US-00	6488
31835	7590	06/15/2004	EXAMINER	
RUSSELL E. FOWLER, II ICE MILLER ONE AMERICAN SQUARE, BOX 82001 INDIANAPOLIS, IN 46282-0002			LIEU, JULIE BICHNGOC	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/609,200	<b>Applicant(s)</b> NEAL, CRAIG J.	
	<b>Examiner</b> Julie Lieu	<b>Art Unit</b> 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/27/04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 22-25, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spero (US 2004/0105264).

#### Claim 1:

Spero discloses solid state adaptive forward lighting system comprising:

- a. An LED array comprising a plurality of LEDs forming a plurality of rows and columns in the LED array (see figure drawings throughout drawing sections);
- b. A controller 7 operable to selectively illuminate LEDs, the illuminated LEDs thereby defining a light source;
- c. At least one sensor for communicating the automobile's orientation to the controller, the controller operable to move the light source within the LED array based on the input from the sensor, the controller selectively illuminating a number of LEDs to effectively move the light source within the LED array.

See page 11, para. [0099], para [0176], and para. [0188-1189].

The reference fails to specifically indicate extinguishing an equal number of LEDs included in the light source to effectively move the light source in the LED array. Nevertheless, the reference implicitly teaches extinguishing some LEDs in order to effect the change. Further, whether the equal number of LEDs is extinguished it depends on the desired light distribution and one skilled in the art would have readily recognized that in some instances, an equal number of LEDs would be extinguished when a selective number of LEDs is illuminated. Lacking criticality as to why an equal number of LEDs must be extinguished in response to a selective number of LEDs illuminated, how it would produce any unexpected result, or solve any stated problem, it appears that this feature would be implicitly included in the system of Spero.

Claim 2:

It is inherent that that at least one sensor is included in the system of Spero. See para [0176].

Claim 3:

The LED array in Spero is comprised of at least one horizontal lead line and one vertical lead line, with each of the at least one light emitting diodes attached to one horizontal lead line and one vertical lead line.

Claim 4:

It is inherent that the controller 7 in Spero comprises a vertical and a horizontal LED driver in communication with the vertical and horizontal lead line.

Claim 6:

In Spero, at least one LED is arranged in a row and column arrangement wherein the controller is in individual communication with each of the at least one LED.

Claims 7-8:

It appears that the pattern of illuminated light emitting diodes is a constant shape or variable.

Claim 9:

Spero discloses solid state adaptive forward lighting system comprising:

- a. An LED array comprising a plurality of LEDs forming a plurality of rows and columns in the LED array (see figure drawings throughout drawing sections);
- b. A controller 7 operable to selectively illuminate LEDs, the illuminated LEDs thereby defining a light source;
- c. At least one sensor for communicating the automobile's orientation to the controller, the controller operable to move the light source within the LED array based on the input from the sensor, the controller selectively illuminating a number of LEDs to effectively move the light source within the LED array.

See page 11, para. [0099], para [0176], and para. [0188-1189].

Spero teaches that a certain number of LEDs is turned ON/OFF selectively. In light of this teaching, it would have been obvious to one skilled in the art that inherently some switches are included in the system to turn on and off these LEDs.

Claim 10:

The rejection of claim 10 recites the rejection of claim 2.

Claim 12:

It appears that the pattern and the number of illuminated light emitting diodes is a constant shape.

Claim 13-14:

It appears that the pattern of illuminated light emitting diodes is variable.

Claims 22-25 and 27-28:

The rejection of claims 22-25 and 27-28 recites the rejection of their corresponding apparatus claims 1-4 and 7-8, respectively.

3. Claims 5 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spero (US 2004/0105264) in view of Sazuka et al. (US 2004/0105275)

Claim 5:

Though Spero fails to disclose a the use of converging lens position in front of the LED array, the use of converging lens is conventional in the art as shown in Sazuka et al. In light of this teaching, it would have been obvious to one skilled in the art to use convergent lens in the system of Spero because it would collimate the light beam.

Claim 15:

Spero discloses solid state adaptive forward lighting system comprising:

- a. An LED array comprising a plurality of LEDs forming a plurality of rows and columns in the LED array (see figure drawings throughout drawing sections);
- b. A controller 7 operable to selectively illuminate LEDs, the illuminated LEDs thereby defining a light source;

c. At least one sensor for communicating the automobile's orientation to the controller, the controller operable to move the light source within the LED array based on the input from the sensor, the controller selectively illuminating a number of LEDs to effectively move the light source within the LED array.

See page 11, para. [0099], para [0176], and para. [0188-1189].

Though Spero fails to disclose a the use of converging lens position in front of the LED array, the use of converging lens is conventional in the art as shown in Sazuka et al. In light of this teaching, it would have been obvious to one skilled in the art to use convergent lens in the system of Spero because it would collimate the light beam.

Claims 16-18:

The rejection of claims 16-18 recites the rejection of claims 2-4, respectively.

Claim 19-20:

It appears that the number of illuminating diodes in Spero is constant and the pattern is a constant shape or can be variable is desired.

Claim 26:

The rejection of claim 26 recites the rejection of claim 5.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tawa et al., US 2003/0231510, discloses a vehicle headlamp.

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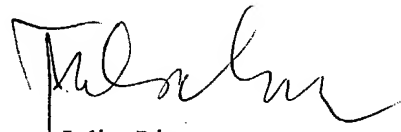
Begemann et al., US Patent No. 6,601,982, discloses a vehicle headlamp and a vehicle.

Harbers et al., US Patent No. 6,406,172.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 703-308-6738. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Hofsass can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Julie Lieu  
Primary Examiner  
Art Unit 2636

Jun 11, 04